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www.alsglobal.com

LABORATORY REPORT

March 28, 2014

Andy Limmer
Weaver Boos Consultants
1604 Eastport Plaza Drive, Suite 104
Collinsville, IL 62234

RE: Cottonwood Hills Flare Gas Sample / 0086-440-10-3

Dear Andy:

Enclosed are the results of the samples submitted to our laboratory on March 14, 2014. For your reference, these analyses have been assigned our service request number P1401033.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

By Sue Anderson at 10:41 am, Mar 28, 2014

Sue Anderson
Project Manager

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Client: Weaver Boos Consultants Service Request No: P1401033
Project: Cottonwood Hills Flare Gas Sample / 0086-440-10-3

CASE NARRATIVE

The samples were received intact under chain of custody on March 14, 2014 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

BTU and CHONS Analysis

The results for BTU and CHONS were generated according to ASTM D 3588-98. The following analyses were performed and used to calculate the BTU and CHONS results.

C2 through C6 Hydrocarbon Analysis

The samples were analyzed according to modified EPA Method TO-3 for C_2 through $>C_6$ hydrocarbons using a gas chromatograph equipped with a flame ionization detector (FID).

Fixed Gases Analysis

The samples were also analyzed for fixed gases (hydrogen, oxygen/argon, nitrogen, carbon monoxide, methane and carbon dioxide) according to ASTM D 1946 using a gas chromatograph equipped with a thermal conductivity detector (TCD).

Hydrogen Sulfide Analysis

The samples were also analyzed for hydrogen sulfide per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD).

Total Gaseous Non-Methane Organics as Methane Analysis

The samples were also analyzed for total gaseous non-methane organics as methane according to modified EPA Method 25C. The analyses included a single sample injection (method modification) analyzed by gas chromatography using flame ionization detection/total combustion analysis.

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ALS Environmental – Simi Valley

Certifications, Accreditations, and Registrations

Agency	Web Site	Number
AIHA	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
DoD ELAP	http://www.pjlabs.com/search-accredited-labs	L14-2
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2012039
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	643428
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	CA200007
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413-13-4
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA016272013-3
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Weaver Boos Consultants

Service Request: P1401033

Project ID: Cottonwood Hills Flare Gas Sample / 0086-440-10-3

Date Received: 3/14/2014

Time Received: 09:50

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pfl (psig)	TO-3 Modified - C1C6+ Can	3C Modified - Fxd Gases Can	ASTM D5504-01 - H2S Can	25C Modified - TGNMO+ 1X Can
CWH-1	P1401033-001	Air	3/12/2014	13:33	SC00390	-0.92	3.15	X	X	X	X
CWH-2	P1401033-002	Air	3/12/2014	14:15	SC01753	0.43	2.64	X	X	X	X
CWH-3	P1401033-003	Air	3/12/2014	14:30	SC01689	-0.05	2.37	X	X	X	X

Air - Chain of Custody Record & Analytical Service Request

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Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10-Day-Standard

ALS Project No: P1401033

Company Name & Address (Reporting Information)
Weaver Boos Consulting
1604 Eastport Plaza Dr. Suite 104
Collinsville, IL 62234

Project Name: Cottonwood Hills Flare Gas Sample

Project Number: 0086-440-10-3

Project Manager: Andy Limmer

P.O. # / Billing Information

Phone: (618) 830-1317

Fax:

Email Address for Result Reporting: alimmer@weaverboos.com

Sampler (Print & Sign): Jacob Allen

ALS Contact:

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume (L)	ASTM D3588 Heating Value	NMOC EPA 25C other EPA 3C/TO-3	Comments e.g. Actual Preservative or specific instructions
CWH-1	1-0.42	3/12/14	1333	SC00390	AVG02557	-16	-1.5	6.0			
CWH-2	2-0.40	3/12/14	1415	SC01753	AVG03815	-19	-1.5	6.0			
CWH-3	3-0.00	3/12/14	1430	SC01689	AVG03623	-18	-1.5	6.0			

Report Tier Levels - please select

Tier I - Results (Default in not specified) _____
Tier II (Results + QC Summaries _____
Tier III (Results + QC & Calibration Summaries) _____
Tier IV (Date Validation Package) 10% Surcharge _____

EDD required YES / No
Type: _____ Units: _____

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3/12/14	1611		3/14/14	0850
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank Temperature _____°C

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WM01086

ALS Environmental
Sample Acceptance Check Form

Client: Weaver Boos Consultants Work order: P1401033

Project: Cottonwood Hills Flare Gas Sample / 0086-440-10-3

Sample(s) received on: 3/14/14 Date opened: 3/14/14 by: MZAMORA

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by ALS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
9	Was a **trip blank** received?	☐	☒	☐
10	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
11	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
12	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
13	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1401033-001.01	6.0 L Source Can					
P1401033-002.01	6.0 L Source Can					
P1401033-003.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers): _____

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

WM01087

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Boos Consultants**
Client Sample ID: **CWH-1** ALS Project ID: P1401033
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Sample ID: P1401033-001

Test Code: ASTM D3588-98
Analyst: Mike Conejo/Nalini Lall Date Collected: 3/12/14
Sample Type: 6.0 L Summa Canister Date Received: 3/14/14
Test Notes:
Container ID: SC00390

Canister Dilution Factor: 2.39

Components	Result Volume %	Result Weight %	Data Qualifier
Hydrogen	**0.46**	**0.03**	
Oxygen + Argon	**4.48**	**5.11**	
Nitrogen	**20.32**	**20.25**	
Carbon Monoxide	< 0.01	< 0.01	
Methane	**42.73**	**24.39**	
Carbon Dioxide	**31.93**	**50.02**	
Hydrogen Sulfide	**0.02**	**0.03**	
C2 as Ethane	< 0.01	< 0.01	
C3 as Propane	< 0.01	< 0.01	
C4 as n-Butane	< 0.01	< 0.01	
C5 as n-Pentane	< 0.01	**0.01**	
C6 as n-Hexane	< 0.01	**0.02**	
> C6 as n-Hexane	**0.03**	**0.12**	
TOTALS	**99.99**	**99.99**	

Components	Mole %	Weight %
Carbon	**20.75**	**32.04**
Hydrogen	**47.81**	**6.19**
Oxygen + Argon	**20.17**	**41.48**
Nitrogen	**11.25**	**20.26**
Sulfur	< 0.10	< 0.10

Specific Gravity (Air = 1)		**0.9702**
Specific Volume	ft3/lb	**13.51**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**436.8**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**393.2**
Gross Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**428.2**
Net Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**385.5**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**5,898.5**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**5,310.8**
Compressibility Factor "Z" (60 F, 14.696 psia)		**0.9977**

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Boos Consultants**
Client Sample ID: **CWH-2** ALS Project ID: P1401033
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Sample ID: P1401033-002

Test Code: ASTM D3588-98
Analyst: Mike Conejo/Nalini Lall Date Collected: 3/12/14
Sample Type: 6.0 L Summa Canister Date Received: 3/14/14
Test Notes:
Container ID: SC01753

Canister Dilution Factor: 1.96

Components	Result Volume %	Result Weight %	Data Qualifier
Hydrogen	**0.43**	**0.03**	
Oxygen + Argon	**4.32**	**4.92**	
Nitrogen	**19.75**	**19.70**	
Carbon Monoxide	< 0.01	< 0.01	
Methane	**43.16**	**24.64**	
Carbon Dioxide	**32.22**	**50.48**	
Hydrogen Sulfide	**0.06**	**0.07**	
C2 as Ethane	< 0.01	< 0.01	
C3 as Propane	< 0.01	< 0.01	
C4 as n-Butane	< 0.01	< 0.01	
C5 as n-Pentane	< 0.01	**0.02**	
C6 as n-Hexane	< 0.01	**0.02**	
> C6 as n-Hexane	**0.03**	**0.10**	
TOTALS	**99.99**	**99.99**	

Components	Mole %	Weight %
Carbon	**20.85**	**32.34**
Hydrogen	**48.08**	**6.26**
Oxygen + Argon	**20.15**	**41.63**
Nitrogen	**10.90**	**19.70**
Sulfur	< 0.10	< 0.10

Specific Gravity (Air = 1)		**0.9700**
Specific Volume	ft3/lb	**13.51**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**441.2**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**397.2**
Gross Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**432.5**
Net Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**389.4**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**5,959.1**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**5,365.4**
Compressibility Factor "Z" (60 F, 14.696 psia)		**0.9977**

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Boos Consultants**
Client Sample ID: **CWH-3** ALS Project ID: P1401033
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Sample ID: P1401033-003

Test Code: ASTM D3588-98
Analyst: Mike Conejo/Nalini Lall Date Collected: 3/12/14
Sample Type: 6.0 L Summa Canister Date Received: 3/14/14
Test Notes:
Container ID: SC01689

Canister Dilution Factor: 2.04

Components	Result Volume %	Result Weight %	Data Qualifier
Hydrogen	**0.51**	**0.04**	
Oxygen + Argon	**4.20**	**4.79**	
Nitrogen	**19.19**	**19.15**	
Carbon Monoxide	< 0.01	< 0.01	
Methane	**43.57**	**24.91**	
Carbon Dioxide	**32.40**	**50.82**	
Hydrogen Sulfide	**0.06**	**0.07**	
C2 as Ethane	< 0.01	< 0.01	
C3 as Propane	< 0.01	< 0.01	
C4 as n-Butane	< 0.01	< 0.01	
C5 as n-Pentane	< 0.01	**0.02**	
C6 as n-Hexane	< 0.01	**0.02**	
> C6 as n-Hexane	**0.04**	**0.15**	
TOTALS	**99.99**	**99.99**	

Components	Mole %	Weight %
Carbon	**20.94**	**32.67**
Hydrogen	**48.41**	**6.34**
Oxygen + Argon	**20.10**	**41.76**
Nitrogen	**10.53**	**19.16**
Sulfur	< 0.10	< 0.10

Specific Gravity (Air = 1)		**0.9689**
Specific Volume	ft3/lb	**13.52**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**446.4**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/ft3	**402.0**
Gross Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**437.6**
Net Heating Value (Water Saturated at 0.25636 psia)	BTU/ft3	**394.0**
Gross Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**6,037.4**
Net Heating Value (Dry Gas @ 60 F, 14.696 psia)	BTU/lb	**5,436.1**
Compressibility Factor "Z" (60 F, 14.696 psia)		**0.9976**

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Boos Consultants**
Client Sample ID: **CWH-1**
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3**

ALS Project ID: P1401033
ALS Sample ID: P1401033-001

Test Code: EPA Method 3C Modified
Instrument ID: HP5890 II/GC1/TCD
Analyst: Nalini Lall
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00390

Date Collected: 3/12/14
Date Received: 3/14/14
Date Analyzed: 3/18/14
Volume(s) Analyzed: 0.10 ml(s)

Canister Dilution Factor: 2.39

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	**Hydrogen**	**0.456**	0.24	
7782-44-7	**Oxygen +**			
7440-37-1	**Argon**	**4.48**	0.24	
7727-37-9	**Nitrogen**	**20.3**	0.24	
630-08-0	Carbon Monoxide	ND	0.24	
74-82-8	**Methane**	**42.7**	0.24	
124-38-9	**Carbon Dioxide**	**31.9**	0.24	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Boos Consultants**
Client Sample ID: **CWH-2** ALS Project ID: P1401033
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Sample ID: P1401033-002

Test Code:	EPA Method 3C Modified	Date Collected:	3/12/14
Instrument ID:	HP5890 II/GC1/TCD	Date Received:	3/14/14
Analyst:	Nalini Lall	Date Analyzed:	3/18/14
Sample Type:	6.0 L Summa Canister	Volume(s) Analyzed:	0.10 ml(s)
Test Notes:			
Container ID:	SC01753		

Canister Dilution Factor: 1.96

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	**Hydrogen**	**0.431**	0.20	
7782-44-7	**Oxygen +**			
7440-37-1	**Argon**	**4.32**	0.20	
7727-37-9	**Nitrogen**	**19.8**	0.20	
630-08-0	Carbon Monoxide	ND	0.20	
74-82-8	**Methane**	**43.2**	0.20	
124-38-9	**Carbon Dioxide**	**32.2**	0.20	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Boos Consultants**
Client Sample ID: **CWH-3** ALS Project ID: P1401033
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Sample ID: P1401033-003

Test Code:	EPA Method 3C Modified	Date Collected:	3/12/14
Instrument ID:	HP5890 II/GC1/TCD	Date Received:	3/14/14
Analyst:	Nalini Lall	Date Analyzed:	3/18/14
Sample Type:	6.0 L Summa Canister	Volume(s) Analyzed:	0.10 ml(s)
Test Notes:			
Container ID:	SC01689		

Canister Dilution Factor: 2.04

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	**Hydrogen**	**0.506**	0.20	
7782-44-7	**Oxygen +**			
7440-37-1	**Argon**	**4.20**	0.20	
7727-37-9	**Nitrogen**	**19.2**	0.20	
630-08-0	Carbon Monoxide	ND	0.20	
74-82-8	**Methane**	**43.6**	0.20	
124-38-9	**Carbon Dioxide**	**32.4**	0.20	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Boos Consultants**
Client Sample ID: **Method Blank** ALS Project ID: P1401033
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Sample ID: P140318-MB

Test Code: EPA Method 3C Modified Date Collected: NA
Instrument ID: HP5890 II/GC1/TCD Date Received: NA
Analyst: Nalini Lall Date Analyzed: 3/18/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.10 ml(s)
Test Notes:

CAS #	Compound	Result %, v/v	MRL %, v/v	Data Qualifier
1333-74-0	Hydrogen	ND	0.10	
7782-44-7	Oxygen +			
7440-37-1	Argon	ND	0.10	
7727-37-9	Nitrogen	ND	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
74-82-8	Methane	ND	0.10	
124-38-9	Carbon Dioxide	ND	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Weaver Boos Consultants**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1401033
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Sample ID: P140318-LCS

Test Code: EPA Method 3C Modified Date Collected: NA
Instrument ID: HP5890 II/GC1/TCD Date Received: NA
Analyst: Nalini Lall Date Analyzed: 3/18/14
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	Compound	Spike Amount ppmV	Result ppmV	% Recovery	ALS Acceptance Limits	Data Qualifier
1333-74-0	Hydrogen	40,000	**36,700**	**92**	84-110	
7782-44-7	Oxygen +					
7440-37-1	Argon	50,000	**50,600**	**101**	88-114	
7727-37-9	Nitrogen	50,000	**51,500**	**103**	88-114	
630-08-0	Carbon Monoxide	50,000	**49,900**	**100**	88-113	
74-82-8	Methane	40,000	**39,000**	**98**	87-110	
124-38-9	Carbon Dioxide	50,000	**49,400**	**99**	84-109	

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Weaver Boos Consultants**
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Project ID: P1401033

Total Gaseous Nonmethane Organics (TGNMO) as Methane

Test Code: EPA Method 25C Modified
Instrument ID: HP5890 II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: 6.0 L Summa Canister(s)
Test Notes:

Date(s) Collected: 3/12/14
Date Received: 3/14/14
Date Analyzed: 3/17/14

Client Sample ID	ALS Sample ID	Canister Dilution Factor	Injection Volume ml(s)	**Result ppmV**	MRL ppmV	Data Qualifier
CWH-1	P1401033-001	2.39	0.50	**2,200**	2.4	
CWH-2	P1401033-002	1.96	0.50	**2,600**	2.0	
CWH-3	P1401033-003	2.04	0.50	**2,900**	2.0	
Method Blank	P140317-MB	1.00	0.50	ND	1.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Weaver Boos Consultants**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1401033
Client Project ID: **Cottonwood Hills Flare Gas Sample / 0086-440-10-3** ALS Sample ID: P140317-LCS

Test Code: EPA Method 25C Modified Date Collected: NA
Instrument ID: HP5890 II/GC1/FID/TCA Date Received: NA
Analyst: Wade Henton Date Analyzed: 3/17/14
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

Compound	Spike Amount ppmV	Result ppmV	% Recovery	ALS Acceptance Limits	Data Qualifier
Total Gaseous Nonmethane Organics (TGNMO) as Methane	99.0	**102**	**103**	81-119	